The Jamesburg Record

Tours to California, Florida, &c., via Pennsylvania Railroad.

For people contemplating either extended or limited pleasure jaunts, during the winter and spring of the new year, an inspection of the Pennsylvania Railroad Company's announcement of its personally conducted tours will prove of great assistance. As far as territory covered is concerned, the first in importance is the series to the Golden Gate and Pacific Coast points, starting from New York and Philadelphia, February 8th, March 24 and 29th. The same liberal provisions accorded last year as to conditions and use of tickets, will be in effect for these tours.

A series of five will run to Florida.—January 31st, February 14th and 28th, March 14th and 28th. The rates of $50 from New York, $48 from Philadelphia, Harrisburg and Washington, and proportionate rates from other points, cover all necessary expenses, en route in both directions. Tickets for the first four tours will admit of a stay of two weeks in the flowery State, and for the fifth, until May 30th.

There will be a series of six to Washington, D. C., each tour covering a period of three days—January 19th, February 9th, March 23d, April 13th, May 4th and 25th. The rates are $13 from New York, $11 from Philadelphia and Wilmington, and proportionate rates from other places and include railroad fare and hotel accommodations while in the capital. For information and itineraries, application should be made to Tourist Agents, 849 South Fourth Street, Philadelphia, or ticket agents of the Pennsylvania Railroad Company.

Soja Bean as a Fodder Crop.

"Will the soja bean come into general use?" was a question asked of the directors of some of the experiment stations and variously answered in The Rural New Yorker. W. W. Cooke, of the Vermont station, replied that Vermont is too far north for it. From the New York station Professor J. P. Roberts wrote that the soja bean was not of much use in New York. Not much chance in Connecticut was the tenor of C. A. Wood's letter from the Connecticut station. Charles A. Flagg, of the Rhode Island station, has a good opinion of the soja bean as a soiling crop and thinks it of sufficient value to urge farmers to experiment with it as a soiling crop and where clover won't "catch." Professor Goessman thinks the soja bean good for a Massachusetts silo and is much pleased with the results gained at the station in growing it for a fodder crop. A valuable plant for North Carolina is the word from the North Carolina station, where the soja bean is recommended as a valuable addition to profitable quick growing crops. Professor Georgeson, of the Kansas Agricultural college, writes, "I see many reasons why it can be made a profitable crop throughout this state and throughout the west, but especially in the region where the corn crop and tame grasses are uncertain."

Winter Rations for Bees.

The amount of honey used will depend in part on the strength of the colony—that is, on the number of bees composing it. Some apiculturists claim that from Nov. 1 till Feb. 1 bees will not consume more than one pound of honey per month per hive if the conditions are as they should be. If the temperature of the hive be right the bees will be in a semidormant state, rousing themselves once in every four or five days to eat food. They complete their feast and then settle down for another long sleep of four or five days' duration. In February the bees awake partially and begin breeding, though very weakly at first. In March they begin to breed in earnest, and being more active much more food is required.

U. S. Commissioner of Massachusetts.

BOSTON, Jan. 19.—William E. Speare was appointed United States commissioner.

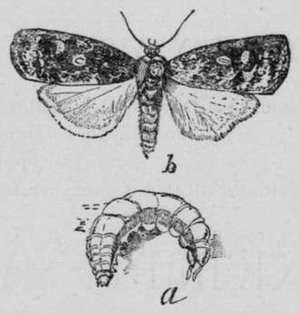
FARM AND GARDEN

LIFE HISTORY OF CUTWORMS.

Three Important Methods of Checking Damage by Cutworms.

There are few garden pests that are more exasperating in their manner of doing damage than the cutworms. A choice tomato plant, perhaps of a new variety, a half dozen young cabbages, two or three young squashes near together, are found lying prostrate in the morning, when they were upright and healthy the evening before. It is easy to see that their stems have been cut off near the surface of the ground during the night, but no other signs of the depredator are visible. Sometimes by poking the earth away from the roots of the plant one can find a dirty brown worm, looking like a in the cut. This is the cutworm, the author of the mischief, and represented in the sketch much enlarged.

There are many species of these cutworms, and they attack a variety of field and garden crops. They are all young, or larvæ of medium sized, night flying moths, one of which is represented after a figure (greatly enlarged) by Dr. Riley at b. These moths deposit their eggs generally on the twigs or branches of trees and shrubs, and the larvæ soon hatch and descend to the ground, where they feed upon grass or clover. They become about half grown by the time winter sets in. Then they shelter themselves under boards or rubbish or burrow into the soil. Thus they pass the winter, and in spring come out of their hiding places in a famished condition. They begin feeding soon as possible, and attack a variety of plants, such as cabbages, tomatoes, turnips, squashes, melons, corn, oats and others.



MOTH AND CUTWORM ENLARGED.

In the garden they commonly gnaw off the stems and leave the plants on the ground, though occasionally they eat the whole plant. Late in spring or early in summer they become full grown as worms. Then they make themselves hollow cells in the soil and change to the pupa or chrysalis state. Two or three weeks later they again change, this time coming forth as adult moths. In some species there are two broods each season, and in others there is but one.

Like other injurious insects, cutworms fluctuate in numbers from year to year. Some seasons they are very destructive, while at other times their injuries may attract no attention. This is doubtless due to the various enemies cutworms have to contend with. They are preyed upon by birds, toads, frogs and predaceous beetles. They are attacked by many kinds of internal parasites and are subject to certain contagious diseases.

Three most important methods of artificially checking the damage done by cutworms are summarized as follows by Clarence M. Weed, authority for the foregoing, in American Cultivator:

First—The poison method. This consists in killing off the worms before the crops are planted by strewing over the soil bunches of fresh clover or cabbage leaves which have been treated with paris green or london purple, either by dipping into a solution of the poison or dusting it on dry. The half grown worms prowling around in search of food eat of the baits thus set and are destroyed before doing any harm.

Second—Using boards as traps. This method consists in placing boards on the ground in and about the garden, and collecting in the morning the worms that will congregate beneath them during the night.

Third—Digging out the worms where plants have been cut off. This is practicable in most gardens, and is well worth doing, thus preventing further damage.

Fall plowing is also a valuable general measure, because it exposes the worms to enemies and the weather. Burning up rubbish and over waste grassland also kills some.

Feeding Dairy Cattle.

At the annual winter meeting of the Massachusetts state board of agriculture much information of practical interest was elicited from papers read and the discussions following. In a paper on cattle feed Professor James Cheeseman, of Southboro, urged the use of cottonseed meal and of linseed meal as an important adjunct to dairy farming, an adjunct already highly appreciated in his state. A special value is given to these concentrated feeds, which greatly enhances the value of the manure dropped by the animals feeding thereon. Professor Cheeseman reseeds his grass lands once in three years, preferring corn on sod and then grasses.

The best way of converting corn into food for cattle, in his opinion, is to put it into the silo. With good ensilage the use of a small amount of cornmeal will secure a well balanced ration. He had three years' experience with ensilage. The cost of raising and harvesting the corn and putting it into the silo is $2.75 a ton, and three tons of good ensilage is worth a ton of hay, according to his experience.

The value of the honey and wax produced in the United States during the past year has been estimated at $20,000,000.

Poultry Pickings.

It rarely pays to keep turkeys until late in the season.

Avoid too much whole grain in feeding.

Eggs will keep better if no roosters are allowed with the hens.

Save all the unmarketable beets, carrots and other root crops to feed to poultry.

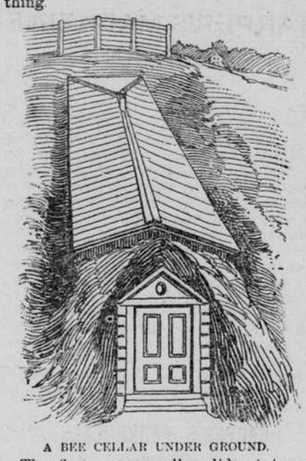
One of the easiest and best ways of supplying charcoal when needed is by burning a few ears of corn in the oven.

UNDERGROUND BEE CELLARS.

Stone Cellars Advised—Ventilation Unnecessary—Sawdust on the Floor.

An interesting and valuable experience in the wintering of bees underground is that of the practical apiarian, Mr. G. M. Doolittle, as related by himself in The Beekeepers' Review. Into a knoll or rise of ground facing the east and rising at the rate of about four inches to the foot he dug about thirty feet, or so that the back end of the hole was about ten feet deep, measuring straight up to the west bank. This same hole was about nine feet wide, and for a trial it was boarded up at first, a roof put over and three feet of earth put on top of the roof. Herein he wintered his bees successfully, thus proving the value of such a place for wintering bees. Concerning his further proceedings in this line Mr. Doolittle says:

When the boards become rotten I tore all down and put in a good wall of stone and mortar, on top of which I put a good strong roof, which was covered with three feet of dry earth, and over the whole was a larger roof, so as to keep the earth and all under it dry. Since then the "strong roof" rotted out, and I now have the cellar covered with flagstone, so that the whole is a permanent thing.



A BEE CELLAR UNDER GROUND.

The first cave or cellar did not have the outer roof; consequently the dirt was kept wet by rains and snows. I find the latter much better, as the dry earth seems to keep a more even temperature than did the former.

The east end wall is 24 feet from the west, and here is the entrance door, so that the cave is in reality only 24 feet long by 6½ wide by 7 feet deep, inside measure. Two feet out from the entrance door is another door, and still two feet farther out is another door, and in front of this last door is an anteroom four feet square, which has a door to that, so I have to open four doors every time I go into the cellar. As these doors all fit nicely, I have three large dead air spaces through which the cold air must pass to get into the cellar, and yet the first mentioned door is the coldest part of the cave or cellar, as is readily shown by the moisture collecting in drops upon it. After the bees are put in here all is shut tight and left so till spring after the bees are set out.

Before remodeling the cellar the last time I put in a subearth ventilator 100 feet long and some 4 or 5 feet deep, also a ventilator at the top, both of which could be controlled at pleasure. From much manipulation of these through a term of years I finally left them shut all the while, and as the bees did better with them shut, and as the temperature could be better controlled with them shut, they were left out entirely in the last construction, and I would not have them back again on any account. On no one point did I ever go with more caution or more "fear and trembling" than on this ventilation matter, so that no one need tell me that I jumped at conclusions regarding it. I am positive that a properly constructed, wholly underground bee cellar needs no more ventilation than will naturally come through walls of mason work and the earth.

Mr. Doolittle states that he would not have the floor of the bee cellar cemented, but he adds: "There are bees dying of old age all the while in any colony, and where many colonies are wintered in any cellar these old bees coming out on the cellar bottom to die, as they always do with the above temperature, make the bottom of the cellar very unpleasant to walk on. Besides the foul smell from decaying bees is very offensive to me, whether offensive to the bees or not. To overcome this I evenly scatter a two bushel bag of sawdust over the floor every month, which not only keeps down all offensive smell and prevents crushing the dead bees on the floor, but absorbs much of the moisture thrown off by the bees as well. Since using the sawdust as above I can say that I am perfectly satisfied with my cellar."

Feeding for Eggs in Winter.

The agricultural editor of the New York World advises those who want eggs during the winter season to feed the laying hens as follows:

Having secured warm, comfortable quarters for the fowls, feed with well balanced egg producing rations. Sound grain in variety, plenty of green food, oyster shells, ground bone and an occasional sprinkling of charcoal comprise an excellent bill of fare for the laying hen. The foods that contain albumen, such as oats, wheat and lean meat scraps, are required for the production of the white of the egg. Lime in some form must be given to insure proper shell formation and a sufficient amount of carbonaceous food, such as corn, fat meat, etc., to sustain the vigor of the fowl and add elements necessary to the formation of the yolk of the egg. Clover hay, which is rich in egg producing food, may be advantageously fed in winter by chopping it fine, scalding and mixing with bran.

Some green vegetable food is essential; hence the advantage of plenty of cabbage, turnips and potatoes. Breeds inclined to fatten readily ought to be fed sparingly of carbonaceous food; therefore the caution repeatedly given against an excess of corn. Best results are gained from oats when ground. Wheat is one of the very best grains for laying hens. In winter excellent results are gained with warm mashes of the grains, boiled potatoes and meat scraps. Milk is excellent, either sweet or clabbered. The fowls ought always to be supplied with gravel or other sharp, gritty material with which to grind their feed. This is especially essential when the birds are on limited runs.

Damp and muddy yards are a prolific cause of disease. Give the fowls a dry place to run and roost.